

Applicant: Keith Hart
Application No.: 10/548,311

REMARKS/ARGUMENTS

Claims 3, 13, 21, 22, 24-34 and 36-40 are currently pending in this application. Claims 3, 36 and 39 are amended. Claims 1, 2, 4-12, 14-20, 23 and 35 are canceled. Applicant submits that no new matter has been introduced into this application by these amendments.

Telephonic Interview

The examiner is thanked for granting a telephonic interview with the Applicant's representative on March 9, 2009. During the interview, a potential in-person interview at the USPTO with the Assignee's representative from Germany was discussed. Unfortunately, the examiner was unable to meet with the Assignee's representative.

Allowable Subject Matter

The Examiner is thanked for indicating that claim 29 contains allowable subject matter and that claims 21, 30 – 34 and 40 are allowed.

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Claim Rejections – 35 U.S.C. § 112

Claims 36 and 39 were rejected in the Action under 35 U.S.C. § 112, second paragraph as indefinite. The amendment of those claims obviates the rejection. Accordingly, withdrawal of the rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 102

Claims 3, 13, 22, 24, 28 and 35 – 39 were rejected under 35 U.S.C. §102(b) as anticipated by U.S. 2,859,771 to Blagg. Applicant respectfully traverses this rejection.

Claim 3, has been amended to include the features of original claim 35 and is directed to a through-flow regulator that is insertable into a gas or liquid line and includes a housing with at least one throttle or regulating body being arranged inside the housing, defining a control gap between the throttle or regulating body and a housing wall, at least one housing wall, limiting a control gap, is provided with a regulating profiling, in the form of grooves or ribs, extending in the through-flow direction, with the control gap changing depending on pressure to regulate flow in a flow-through direction. The housing is comprised of at least two housing parts and between the facing sides of the housing parts, a housing seal is provided which is integrally connected in one piece to the at least one throttle body or regulating body supported inside the housing.

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The features of amended claim 3 are shown in Figs. 5 and 6 of the applications, which are reproduced below.

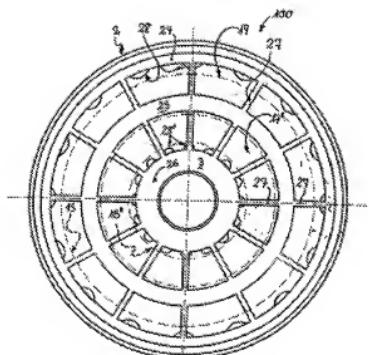


Fig. 3c

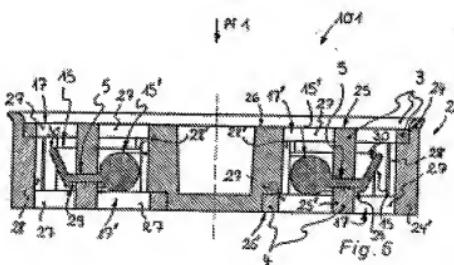


fig. 6

This is contrast to Blagg, which is directed to a one-way valve which is used in connection with mud pumps. There is no teaching in Blagg of a profiling in the form of grooves or ribs, extending in the through-flow direction. Blagg also fails to

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show or suggest a throttle, which defined as a mechanism by which the flow of a fluid is managed by constriction or obstruction.

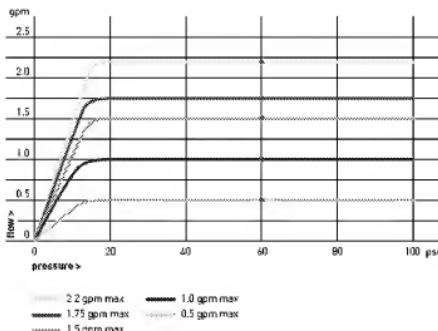
Blagg lacks any regulating profiling in the through-flow direction because the conical sealing membrane (15) is pressed inwardly away from the sealing surfaces (22) on the housing (11). In the opposite direction, regulating profiling would defeat the purpose of Blagg which is to provide a check valve to prevent backflow. In the present case, flow is designed to be in an opposing direction to the arrangement of Blagg and the regulating profiling is between the ends of the sealing lip (equivalent to 25 in Blagg) and the inner wall of the housing (equivalent to the housing (11) of Blagg). As this is neither suggested nor disclosed by Blagg, and in fact would defeat the very purpose of Blagg in providing a check valve, claim 35 cannot be anticipated by Blagg.

Further, contrary to the examiner's assertions, no control gap is defined in Blagg between the throttle and regulating body, nor does the control gap change depending on pressure to regulate flow in a flow-through direction which regulates flow if a higher pressure medium is being discharged by reducing the control gap size. The one-way valve of Blagg is either open when fluid is flowing in the flow direction, or closed when fluid is flowing in the opposite direction. There is no regulation of the flow dependent on the pressure of the fluid flowing.

As a feature of the throttle claimed in claim 3, the throttle is subjected to the line pressure is compressed into the seating area which reduces the water passage

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The graph below represents various water flows that are controlled by aerators that include a flow regulator as the one claimed. Note that a constant flow rate, regardless of variations in line pressure, is achieved.

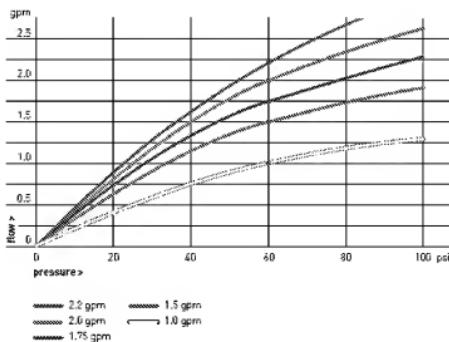


In contrast, it appears that Blagg would increase flow as higher pressure medium is applied in the flow through direction and, if the flow were applied in the opposite direction, would close off entirely to prevent back flow. Blagg cannot regulate flow in the flow-through direction. The examiner has taken a broad interpretation of the term regulates and states in the action:

The device of Blagg "regulates" flow in the flow through direction in that, in the event the valve element 15 assumes a position between that in which it contains the inner periphery of the cylinder 11, i.e. closed, and that in which full fluid flow through the valve occurs, the valve element 15 occupies an intermediate position therebetween at which the fluid flow through the valve device is regulated.

As mentioned above, the flow through the one-way valve of Blagg is "binary" i.e. on or off. There is no way for the one-way valve of Blagg to regulate flow as claimed, since the valve of Blagg does not include a throttle.

The graph below represents various water flows that do not pass through a through-flow regulator as claimed. Note the higher flow at higher pressure.



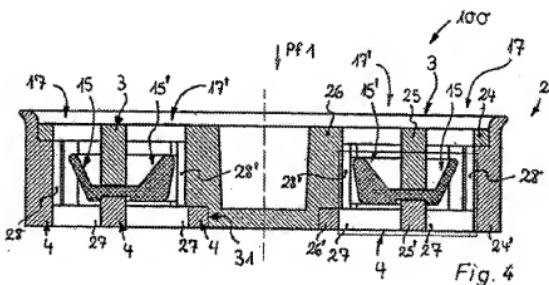
The flow is not regulated and is essentially only limited by the diameter of the pipe carrying the fluid.

Thus, Blagg fails to disclose all of the features of claim 3. Accordingly, withdrawal of the Section 102(b) rejection of claim 3 is respectfully requested. Claims 13, 22, 24-29 and 34 depend directly or indirectly from claim 3 and should be similarly patentable for the reasons noted together in claim 3.

Claims 25 – 27 were rejected in the Action under 35 U.S.C. § 103(a) as obvious over Blagg in view of U.S. Patent No. 3,022,796 to Cummings.

Applicant respectfully traverses the rejection. Claim 25, which ultimately depends from claim 3, is believed to be allowable for the same reasons as set forth above. Further, claim 25 further recites that a control motion of the at least one lip-shaped throttle body is limited by a control stop. No control stops are provided in Blagg or Cummings in the flow-through direction as the only stop provided is via the sealing edges of the valve housing in the opposite direction, in Blagg and the sealing support element in Cummings.

Fig. 4 of the application is reproduced below and clearly shows the relationship between the lip-shaped throttle body 15, 15' and the control stop.



Claim 26 depends from claim 25 and further recites that the at least one lip-shaped throttle body comprises a lip section, aligned approximately lateral to a through-flow direction which extends into the free lip end region aligned opposing the through-flow direction, which cannot be the case in the combination of Blagg

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with Cummings. With respect to claim 27, this claim depends from claim 26 and further recites that the lip section approximately aligned lateral to the through-flow direction cooperates with the control stop, which again is absent in the teachings of the combination.

Accordingly, withdrawal of the Section 103(a) rejection of claims 25 - 27 is respectfully requested.

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Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to pace this application in condition for allowance, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendments and remarks, Applicant respectfully submits that the present application, including claims 3, 13, 21, 22 and 24 – 34 and 36 – 40, is in condition for allowance and a Notice to that effect is respectfully requested.

Respectfully submitted,

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